## **ABSTRACT**

A goniometric sensor (1) for measuring the relative rotation of two objects (20,25) comprising a flexible elongated element (2) whose respective ends are connected to the two objects (20, 25) and during whose bending the length variation  $\Delta L$  is determined of one of the lines (15) not located at the neutral axis (10). This length variation  $\Delta L$  is directly proportional to the relative rotation ( $\alpha$ ) between the two bodies (20, 25) multiplied for the eccentricity (e) of the line (15) with respect to the neutral axis (10). Therefore, it is possible to determine easily the relative rotation ( $\alpha$ ) by knowing the length L and the eccentricity (e) with respect to the neutral axis 10, and measuring the length variation  $\Delta L$  of the line, for example by measuring the movement of the end of a cable located in a hole that contains the line.

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